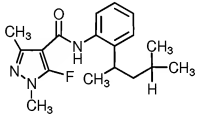
REMARKS

Applicants have amended Claim 19 to limit the carboxamide of formula (I) (i.e., "group 1") to the embodiment in which A is the pyrazole ring A1, R^1 is hydrogen, R^2 and R^3 are each methyl, and R^4 is fluorine, which is identified in the specification at page 12, lines 10-11, as compound (1-2) having the chemical name *N*-[2-(1,3-dmethylbutyl)-phenyl]-5-fluoro-1,3-dimethyl-1*H*-pyrazole-4-carboxamide and which is the subject compound of Claim 24, now canceled as redundant. This compound, also known as penfluthrin, can be represented by the formula



.

Applicants have accordingly canceled Claims 20, 22-24, and 26-29. Applicants have also amended Claim 19 to limit the mixing partners to groups (2), (3), (5), (6). (8), (9), (11), (12), (14), (16) to (22), and (24). Within group (6), Applicants have deleted embodiments in which X could be phenyl. Within group (19), Applicants have deleted chlorothalonil (compound (19-2)), which it may be noted is a compound structurally unrelated to the other specified fungicides of group (19). Applicants have accordingly amended Claim 21 to exclude the canceled subject matter. Applicants note by way of comment that their use examples (beginning in the specification at page 86) include at least one example of a compound within each of these groups except groups (18) and (21). Applicants have amended other claims to modify their reference to the numbered groups of mixing partners and to correct other informalities. Applicants submit that their amended claims remain fully supported in the specification.

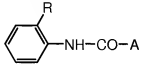
Drawings

The Office Action at page 2 includes a discussion of color drawings and refers to a purported submission of color drawings on April 30, 2008. Applicants, however, submitted no drawings and assume that the discussion of drawings is an inadvertent error in the Office Action. Applicants respectfully request an acknowledgement of this error in a future correspondence.

Rejection under 35 U.S.C. 103

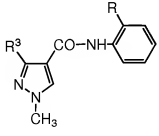
Claims 19-35 stand rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,438,070 ("Eicken et al '070") in view of U.S. Patent 5,480,897 ("Eicken et al '897"), JP 63-48269, and U.S. Patent Publication 2002/0134012 ("Ding et al"). Applicants note that a continuation of Ding et al was published as U.S. Patent Publication 2005/0197251 and that the parent '012 application was abandoned. Applicants respectfully traverse.

Eicken et al '070 discloses carboxanilides having the formula



in which **R** is optionally halogenated alkyl, alkoxy, alkenyl, alkenyloxy, alkynyl, or alkynyloxy, or optionally alkyl-substituted cycloalkyl, cycloalkenyl, cycloalkyloxy, or cycloalkenyloxy, or optionally substituted phenyl, and **A** can be any of five heterocyclic groups, one of which is a pyrazole A5 having the formula

in which R^3 is alkyl or haloalkyl (with certain provisos that further limit the allowable combination of structural features). E.g., column 1, line 6, through column 2, line 21. For purposes of comparison with Applicants' invention as now claimed, it is necessary to consider only pyrazole compounds having the formula

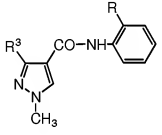


(where the formula in a different orientation can be found in Table E at column 16). Eicken et al '070 also teaches that the disclosed carboxanilides can be used in combination with other known microbicides, some of which are said to be capable of

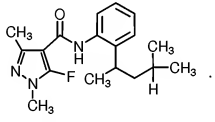
providing a synergistic effect, and discloses several examples of such microbicides. E.g., column 20, line 28, through column 21, line 58. One such optional microbicide is 2,4,5,6-tetrachloroisophthalodinitrile, also known as chlorothalonil, a compound that is no longer within Applicants' claims (as mentioned above).

Applicants submit that their claimed invention is distinguishable from Eicken et al '070, whether taken alone or with the other cited references.

First, penfluthrin – the sole carboxanilide of Applicants' group (1) within their current claims – is structurally different from the carboxanilides disclosed in Eicken et al '070, as can be seen by comparing the above formula with the formula for penfluthrin, that is,



with



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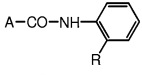
Eicken et al '070 does not disclose or even remotely suggest compounds having a third substituent on the pyrazole ring, much less a fluorine atom as specified by Applicants. Furthermore, although the 1,3-dimethylbutyl side chain of penfluthrin can be found buried within a voluminous list of possible groups R spanning columns 4 to 9 of the reference (specifically, column 4, lines 65-66), Eicken et al '070 does not exemplify even one compound having a 1,3-dimethylbutyl side chain within the large array of specific pyrazole compounds in Table E (see columns 16-17). [It may also be noted by way of comment that none of the carboxanilides shown in this or other tables has a 1,3-dimethylbutyl side chain.] Although the absence of specific examples of compounds having a 1,3-dimethylbutyl side chain is not alone dispositive, Applicants submit that the absence of both a third substituent on the pyrazole ring and a 1,3-dimethylbutyl side chain on the benzene ring is consistent with their belief that Eicken et al '070 would not lead those skilled in the art to fungicidal combinations containing penfluthrin as now claimed.

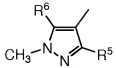
Second, Applicants submit that even if one ignores the deletion of chlorothalonil from their claimed combinations (partly in response to the reference to chlorothalonil in the Office Action at the bottom of page 4), Eicken et al '070 does not exemplify a single combination containing even one of the disclosed carboxanilides with chlorothalonil or any other microbicide. Moreover, despite providing extensive lists of possible fungicide mixing partners, Eicken et al '070 does not disclose the particular groups of mixing partners specified in Applicants' claims. Even if some combinations within the contemplation of Eicken et al '070 might exhibit synergism, it is not reasonable to conclude that one would expect mixtures of an undisclosed carboxanilide such as penfluthrin with other mixing partners to exhibit anything other than merely additive effects. Applicants therefore submit that Eicken et al '070 not only does not suggest penfluthrin but also does not suggest the particular combinations of penfluthrin with the mixing partners that characterize their claimed invention.

Applicants therefore submit that Eicken et al '070 would not lead those skilled in the art to their invention. Applicants also submit that Eicken et al '897, JP 63-48269, and Ding et al would not bridge the gap between Eicken et al '070 and their invention.

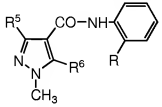
Eicken et al '897 discloses anilide compounds having the formula



where the substituents are somewhat different from those of Eicken et al '070 in that **R** is optionally halogenated alkyl, alkenyl, alkynyl, alkoxy, alkenyloxy, or alkynyloxy, or optionally alkyl-substituted cycloalkyl, cycloalkenyl, cycloalkyloxy, or cycloalkenyloxy, or optionally substituted phenyl, and **A** is optionally substituted phenyl or optionally substituted pyridin-3-yl or one of a selection of other heterocycles, one of which is 1-methylpyrazol-4-yl substituted in the 3- and 5-positions by methyl, chlorine, or trifluoromethyl. E.g., column 1, lines 6-48. For purposes of comparison with Applicants' invention, it is necessary to consider only compounds in which A is a pyrazole A6 having the formula

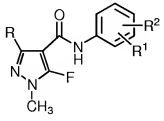


in which R^5 is limited to methyl or trifluoromethyl and R^6 is limited to methyl or chlorine (e.g., column 17, lines 20 and 55, taken with Table 10 at columns 24-25), which compounds can be represented by the formula

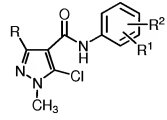


(where the depiction of the pyrazole ring has been rotated for easier comparison with the formulas shown above for penfluthrin and the compounds of Eicken et al '070). Unlike Eicken et al '070, Eicken et al '897 does disclose compounds in which the pyrazole ring has three substituents. However, unlike the fluorine substitution that characterizes penfluthrin (specified by Applicants), the corresponding substituent of Eicken et al '897 must be either a methyl group or a chlorine atom. It may also be noted that just as with Eicken et al '070 discussed above, Eicken et al '897 discloses a 1,3-dimethylbutyl group only within a voluminous list of possible groups R spanning columns 1 to 4 (specifically, column 1, line 65) but does not exemplify even one compound having such a 1,3-dimethylbutyl side chain, much less penfluthrin. Furthermore, although Eicken et al '897 teaches that the disclosed anilides can be used in combination with other known fungicides, some of which are said to provide an enhanced effect, and discloses several examples of such fungicides (e.g., column 35, line 56, through column 37, line 45), Eicken et al '897 – just as with Eicken et al '070 – does not exemplify a single combination containing even one of the disclosed anilides with any fungicide mixing partner. Applicants therefore submit that Eicken et al '897 adds nothing that would lead those skilled in the art from Eicken et al '070 to the particular combinations of penfluthrin with the mixing partners that characterize their claimed invention.

The Office Action relies on **JP 63-48269** for disclosure of certain fungicidal pyrazolecarboxamides, namely fungicidal fluorine- and chlorine substituted pyrazole-carboxamides having the formulas



and



(where the formulas are oriented in a manner similar to those shown above for easier comparison) in which for each compound **R** is methyl or ethyl and **R^1** and **R^2** are independently hydrogen, halogen, lower alkyl, or lower alkoxy. See Japanese patent at page 547, left column, as well as the English abstracts provided with Office Action and obtained from the Japanese Patent Office (copy enclosed). Although Applicants would ordinarily distinguish the disclosed compounds from those of their invention (e.g., by pointing out the limited disclosure of groups R^1 and R^2 in the table at page 550), it appears that this reference is being relied upon as teaching carboxamides of Applicants' group (1). In view of Applicants' amendment to limit this component to the known fungicide penfluthrin (see specification at page 1, lines 7-8), Applicants submit that JP 63-48269 adds nothing that their specification does not already teach.

Ding et al discloses a method for controlling the release of agricultural active ingredients from treated seeds. E.g., paragraph [0003]. Applicants submit that even if such seed treatment methods are known, Ding et al does not disclose Applicants' particular combinations of active ingredients and thus would not lead those skilled in the art to the use of such combinations nor to seeds that are treated with such compositions. It is seeds treated with Applicants' particular compositions, not the specific method used to treat the seeds, that is the purpose of Claims 30, 31, and 34.

In view of the clear differences in chemical structure of penfluthrin when contrasted with the compounds disclosed in Eicken et al '070 and Eicken et al '897 and the absence from the references of any illustrative mixtures to lead the way to Applicants' claimed combinations and in view of failure of JP 63-48269 or Ding et al to add any teachings that would bridge the gap between the Eicken et al patents to their

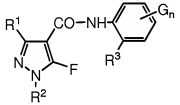
claimed invention, Applicants respectfully submit that that invention is not rendered obvious by Eicken et al '070 in view of Eicken et al '897, JP 63-48269, and Ding et al.

Double Patenting Rejections

A. U.S. Patent 7,538,073 in view of Eicken et al '070, Eicken et al '897, and Ding et al

Claims 1-25 [*sic*, 19-25?] and 30-35 stand rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over Claims 1-12 and 14-16 of U.S. Patent 7,538,073 in view of Eicken et al '070, Eicken et al '897, and Ding et al. Applicants assume that the rejection is intended to refer to their Claims 19-25 and 30-35 but request clarification if this assumption is incorrect. Applicants respectfully traverse.

The '073 patent is directed to pyrazolylcarboxanilides having the formula



in which **R**^{1} represents hydrogen, cyano, halogen, nitro, (halo)alkyl, cycloalkyl, (halo)alkoxy, (halo)alkylthio, or aminocarbonylalkyl; **R**^{2} represents hydrogen, alkenyl, cycloalkyl, (halo)alkylthioalkyl, or (halo)alkoxyalkyl; **R**^{3} represents unsubstituted C_2-C_{20} alkyl or variously substituted C_1-C_{20} alkyl; **G** represents halogen or alkyl; and **n** is zero (meaning G can be absent), 1, or 2. E.g., column 1, lines 25-67. It may be noted that compound 3.26 (see column 34) corresponds to penfluthrin. The '073 patent also teaches that the disclosed pyrazolylcarboxanilides can be used in combination with other active compounds, including some of the mixing partners specified by Applicants (e.g., column 21, line 61, through column 26, line 15), but – as acknowledged in the Office Action at page 10 – does not teach or suggest that such mixtures would be synergistic. Moreover, none of the claims of the '073 patent are directed to such mixtures. The Office Action, however, states at page 10 that the other cited references would suggest that such mixtures would be effective in treating plants and seeds and might exhibit synergism. Applicants submit that those skilled in the art would at most expect merely additive effects, not synergism. In view of the absence of claims within

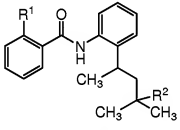
the '073 patent directed to synergistic mixtures, Applicants respectfully submit that their claimed invention is patentably distinct from the '073 patent.

Nevertheless, to move the present application toward allowance, Applicants would be willing to submit a suitable terminal disclaimer if the claims are otherwise found allowable.

B. U.S. Patent 7,314,958 in view of Eicken et al '070, Eicken et al '897, and Ding et al

Claims 1-21 [*sic*, 19-21?] and 26-35 stand rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over Claims 1-3 and 5-7 of U.S. Patent 7,314,958 in view of Eicken et al '070, Eicken et al '897, and Ding et al. Applicants assume that the rejection is intended to refer to their Claims 19-21 and 26-35 but request clarification if this assumption is incorrect. Applicants respectfully traverse.

The '958 patent is directed to phenylbenzamides having the formula

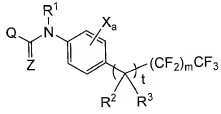


in which **R**^{1} represents trifluoromethyl, chlorine, bromine, or iodine and **R**^{2} represents hydrogen, methyl, or ethyl. E.g., column 1, lines 21-45. Unlike the carboxamides of Applicants' claimed invention, the phenylbenzamides of the '958 patent have no pyrazole ring but instead have a second benzene ring. Therefore, regardless of the teachings of the secondary references Eicken et al '070, Eicken et al '897, and Ding et al, Applicants submit that their claimed invention is patentably distinct from the claims of the '958 patent and thus that no further arguments and no terminal disclaimer are needed to overcome this ground of rejection.

Information Disclosure Statement

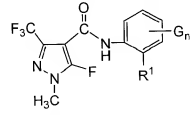
Applicants now submit a Supplemental Information Disclosure Statement to identify two additional documents that the undersigned has recently learned about and that have not previously been cited, namely WO 2002/096882 (a counterpart of U.S. Patent 7,459,477) and WO 2004/067515 (a counterpart of U.S. Patent 7,358,214).

WO 2002/096882 discloses substituted anilide derivatives having the formula



in which Q can be, inter alia, a variously substituted pyrazolyl moiety Q9, with the other groups being defined in the specification. E.g., '477 patent at column 1, line 50, through column 10, line 44, with Q9 being shown at column 5, line 30. A particular structural requirement is a polyfluorinated alkyl substituent on the benzene ring having no counterpart in Applicants' claimed invention.

WO 2004/067515 discloses pyrazolylcarboxanilides having the formula



in which the various groups are defined in the specification. E.g., '214 patent at column 1, lines 15-43. A particular structural requirement is a trifluoromethyl substituent on the pyrazolyl ring having no counterpart in Applicants' claimed invention.

In view of the preceding amendments and remarks, allowance of the claims is respectfully requested.

Respectfully submitted,

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